

# Program Overview Title 17 Clean Energy Financing

- Innovative Energy & Innovative Supply Chain
- State Energy Financing Institution (SEFI)
- Energy Infrastructure Reinvestment (EIR)





# Agenda

- What LPO Does | Building a Bridge to Bankability Application Activity
- What LPO Offers Borrowers | The Value of Working With LPO
- LPO Financing Programs | Title 17 ATVM TELGP CIFIA
- Title 17 Clean Energy Financing | Project Eligibility & Categories Lending Guide
- LPO's Portfolio | A Record of Impact, Risk Management, and Good Governance
- Portfolio Impact | Catalyzing Markets, Reducing Emissions, Creating Jobs
- Open for Business | The Next Generation of LPO Financing
- Working with LPO | Let's Talk About Your Project





# **What LPO Does**



There are many areas that are mature from a technology standpoint but not mature from an access to capital standpoint — that's a nexus where there's a clear mandate for LPO to participate.

**LPO Director Jigar Shah** 



The U.S. Department of Energy Loan
Programs Office (LPO) works with the
private sector to finance the deployment and
scale-up of innovative clean energy technologies,
build energy infrastructure and domestic supply
chains, create jobs, and reduce emissions in
communities across the United States.





# **Building a Bridge to Bankability**

# **Deployment Milestones**

Demonstrated Innovative Technology

1 First Commercial Deployments

- 2 Follow-On Commercial Deployments
- Commercial Scale-Up

4 Commercial Debt Market Education

Full Market Acceptance

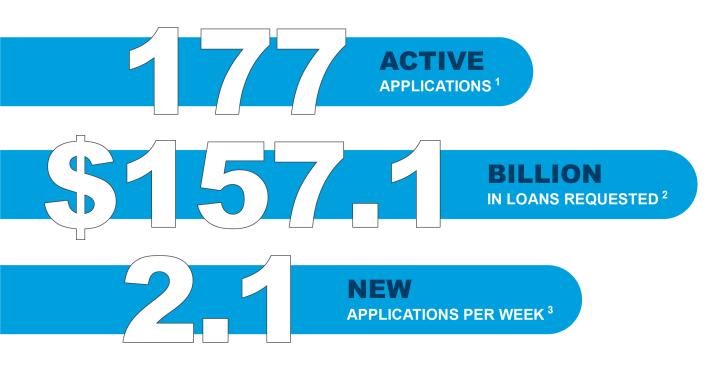






## **Monthly Application Activity Report**

#### September 2023



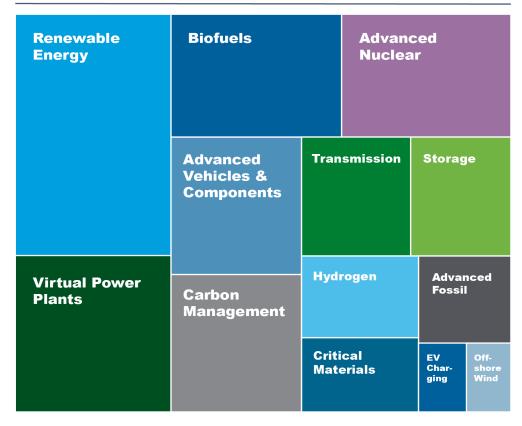
#### Notes

All data updated through September 30, 2023. For more details and a list of technology areas of interest within each LPO tech sector, see: Energy.gov/LPO/MAAR

- 1) Active applications include applications that have been submitted by the project sponsor(s) through LPO's online application portal and are in different stages of active review and engagement by LPO and the applicant.
- 2) Individual requested loan amounts are estimated and potential, subject to change, and not necessarily representative of final financing terms. Requested loan amounts in current active applications do not affect available LPO loan authority. Figure rounded down to the nearest \$0.1 billion.
- 3) Current rolling average of new active applications per week over the previous 24 weeks. Figure rounded down to the nearest 0.1 application per week.

#### **\$157.1 BILLION**

CURRENT AMOUNT OF LOANS REQUESTED BROKEN DOWN BY PROJECT TECHNOLOGY SECTORS

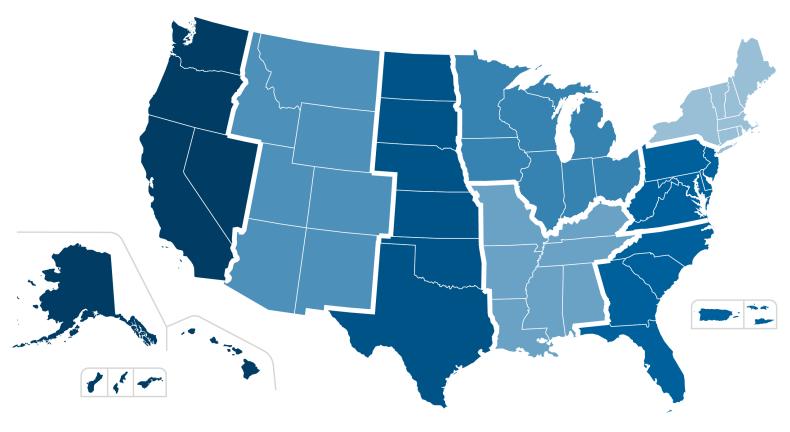






#### **Monthly Application Activity Report**

#### September 2023



#### Notes

All data updated through September 30, 2023. For more details and a list of technology areas of interest within each LPO tech sector, see: Energy.gov/LPO/MAAR

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1	<b>ACTIVE APPLICATIONS 1 WIT</b>	ГΗ

216 PROPOSED PROJECT LOCATIONS ACROSS ALL REGIONS OF THE U.S.<sup>2</sup>

WEST	AK, CA, HI, NV, OR, WA <i>(AS, GU, MP)</i>	54
PLAINS	KS, ND, NE, OK, SD, TX	31
MID-ATLANTIC	DE, MD, NJ, PA, VA, WV <i>(DC)</i>	24
SOUTHEAST	FL, GA, NC, SC (PR, VI)	24
MIDWEST	IA, IL, IN, MI, MN, OH, WI	23
MOUNTAIN	AZ, CO, ID, MT, NM, UT, WY	22
SOUTH	AL, AR, KY, LA, MO, MS, TN	20
NORTHEAST	CT, MA, ME, NH, NY, RI, VT	18





<sup>1)</sup> Active applications include applications that have been submitted by the project sponsor(s) through LPO's online application portal and are in different stages of active review and engagement by LPO and the applicant.

<sup>2)</sup> Regions depicted are for representation purposes only and are not meant to denote LPO consideration of regional variation in project evaluation.

## **Monthly Application Activity Report**

#### September 2023

#### Estimated Remaining Loan Authority for LPO Financing Programs

\$72.2 B

Remaining Loan Authority (Statutory)

\$60.0 B

Approximate Loan Authority Available <sup>1</sup>

\$50.0 B

Approximate Loan Authority Available <sup>2</sup>

#### **Title 17 Clean Energy**

via the Title 17 Clean Energy Financing Program (1703)

- Innovative Energy
- Innovative Supply Chain
- State Energy Financing Institution (SEFI)-Supported

Title 17 Energy Infrastructure Reinvestment

via the Title 17 Energy Infrastructure Reinvestment (EIR) Program (1706) Advanced Transportation Financing

via the Advanced Technology Vehicles Manufacturing Program (ATVM)

#### Notes

All program lending authority amounts—approximate and statutory—are updated through September 30, 2023.

- 1) EIR has a statutory limitation on loan guarantee authority of up to \$250 billion.
- 2) Neither ATVM nor CIFIA have a statutory limitation on the direct loan authority (ATVM) and direct loan and loan guarantee authority (CIFIA) amounts. Figures listed here for ATVM and CIFIA as "approximate loan authority available" are best estimates based on current credit subsidy available.
- CIFIA is administered in support of DOE's Office of Fossil Energy & Carbon Management.

\$20.0 B

Remaining Loan Authority (Statutory)



# Tribal Energy Financing

via the Tribal Energy Loan Guarantee Program (TELGP) \$20.0 B

Approximate Loan Authority Available <sup>2</sup>



via the Carbon Dioxide Transportation Infrastructure Finance & Innovation Program (CIFIA)<sup>3</sup>





# **What LPO Offers Borrowers**

LPO loans and loan guarantees are differentiated in the clean energy debt capital marketplace in three primary ways:



#### **Access to Patient Capital**

that private lenders cannot or will not provide.



#### **Flexible Financing**

customized for the specific needs of individual borrowers.



#### **Committed DOE Partnership**

offering specialized expertise to borrowers for the lifetime of the project.





# LPO Financing Programs



#### **Title 17 Clean Energy (Title 17)**



#### **Tribal Energy (TELGP)**

#### **Financing for:**

- Innovative Energy & Innovative Supply Chain (1703)
- State Energy Financing Institution (SEFI)-Supported (1703)
- Energy Infrastructure Reinvestment (EIR, 1706)

#### **Financing for:**

Tribal energy development projects



#### **Advanced Transportation (ATVM)**

#### **Financing for:**

 Manufacturing of advanced technology vehicles, several modes of ATVs, components, and EV charging infrastructure



# **CO<sub>2</sub> Transportation Infrastructure (CIFIA)**

#### Financing for:

Large-capacity, common carrier
 CO<sub>2</sub> transportation projects







TITLE 17 CLEAN ENERGY FINANCING (1703 & 1706)

# Title 17 Clean Energy Financing Program

- Innovative Energy Projects
- Innovative Supply Chain Projects
- State Energy Financing Institution (SEFI)-Supported Projects
- Energy Infrastructure Reinvestment (EIR) Projects





# **Title 17 Clean Energy Financing**

(Title 17)

Loan guarantees for the deployment of energy projects at commercial scale

#### **Four Project Categories**

- 1. Innovative Energy (1703)
- 2. Innovative Supply Chain (1703)
- 3. State Energy Financing Institution (SEFI)-Supported (1703)
- 4. Energy Infrastructure Reinvestment (EIR) (1706)

#### **Project Eligibility**

- 1. Project located in the United States.
- 2. Be an energy project.
- 3. Achieve significant and credible GHG or air pollution reductions.
- 4. Have a reasonable prospect of repayment.
- 5. Involve technically viable and commercially ready technology.
- 6. Include a Community Benefits Plan.

#### **Loan Guarantee Features**

- LPO can offer 100% guarantee of U.S. Treasury's Federal Financing Bank (FFB) loans or partial guarantees of commercial loans.
- Senior secured debt priced competitively with commercial rates.
- DOE can serve as sole lender or as a co-lender.
- Structures may include project finance or structured corporate financing.





# **New Title 17 Program Guidance**

- ✓ Released 19 May 2023.
- The new guidance consolidates and replaces previous documents and establishes four new, distinct project categories.
- ✓ Applicants who have submitted a Part I or Part II application for Title 17 financing through previous solicitations DO NOT need to resubmit.
- However, for applications currently under review, **LPO**may request supplemental information in line with the new requirements.
- ✓ Prior determinations made with respect to applicant eligibility do not change.







# **Title 17 Clean Energy Project Categories**



#### **Innovative Energy (1703)**

Financing for commercial-scale deployment of innovative energy projects.



#### **Innovative Supply Chain (1703)**

Financing for commercial-scale deployment of innovative manufacturing processes and technologies.



#### **State Energy Financing Institutions (1703)**

Financing that aligns federal dollars with state clean energy priorities.



#### **Energy Infrastructure Reinvestment (1706)**

Financing to leverage existing U.S. energy infrastructure for the clean energy future.





# **Title 17 Program Eligibility**

#### **All Projects Must:**

- 1. Be located in the United States, territories, or possessions.
- 2. Be an energy-related project.
- 3. Achieve significant and credible GHG or air pollution reductions.
- 4. Have a reasonable prospect of repayment.
- 5. Involve technically viable and commercially ready technology.
- 6. Include a Community Benefits Plan.
- 7. Not benefit from prohibited federal support.

#### **Category-Specific Requirements:**

Projects must also meet additional requirements specific to their category:



**Innovative Energy (1703)** 



**Innovative Supply Chain (1703)** 



**State Energy Financing Institutions (1703)** 



**Energy Infrastructure Reinvestment (1706)** 





## 1703 Projects Require at Least One Eligible Technology







#### **APPLIES TO:**

- ✓ Innovative Energy Projects
- ✓ Innovative Supply Chain Projects
- ✓ State EnergyFinancingInstitution (SEFI)Projects



Advanced nuclear energy



Carbon capture and sequestration technology

Efficient electrical generation, transmission, and distribution



Efficient enduse energy technologies

Hydrogen

technology

fuel cell

















# **Community Benefits Plans**

#### **A New Title 17 Project Application Requirement**

- ✓ A Community Benefits Plan (CBP) is now considered in the evaluation of Title 17 project applications.
  - LPO can discuss and provide feedback during pre-application consultations.
  - CBPs will be preliminarily evaluated during the Part II evaluation.
  - Applications with inadequate CBPs may not be invited to proceed to due diligence.
- ✓ LPO considers the quality of a CBP among the factors that indicate the prospect of loan repayment.
- ✓ LPO is leveraging commitments made for state and city incentives, and IRA Incentives
- ✓ Borrowers will report on their fulfillment of goals and activities included in the CBP.

#### **The Four Priorities**

- 1) Justice 40
- 2) Diversity, Equity, Inclusion, and Accessibility
- 3) Quality Jobs
- 4) Community & Labor Engagement





# **Community Benefits Plans**

#### **More About the Four Priorities**

#### 1. Justice40

Contribute to the goal that 40 percent of the overall benefits of clean energy investment flow to disadvantaged communities.

#### 2. Diversity, Equity, Inclusion, and Accessibility

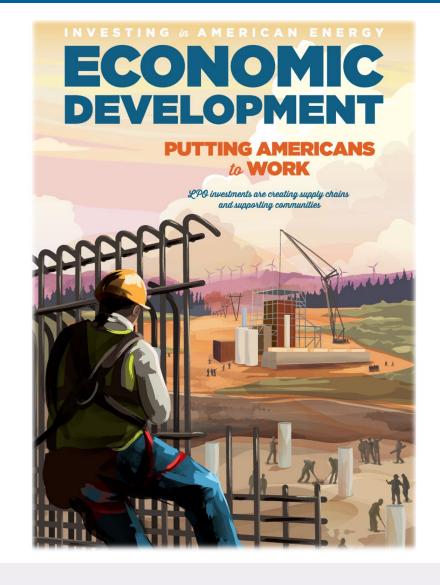
Equitable access to wealth building opportunities, strengthening ties with the community, diversifying supply chains, and contributing to the health and robustness of the surrounding community.

#### 3. Quality Jobs

Ensuring jobs are of sufficient quality to attract and retain skilled workers in the industry with wages and benefits and worker supports, investing in workforce education and training, and supporting strong labor standards with the free and fair choice to join a union.

#### 4. Community & Labor Engagement

Support meaningful engagement with labor unions and community stakeholders, such as local governments, Tribal governments, and community-based organizations, leading to formal agreements.









TITLE 17
Innovative Energy
Projects
(1703)

# Innovative Energy Projects (1703)

**Innovative Energy projects** deploy qualifying New or Significantly Improved Technology that is technically proven but not widely commercialized in the United States.







# **Innovative Energy Projects**

1703

Financing for commercial-scale deployment of innovative energy projects

#### **Project Eligibility**

In addition to meeting the common Title 17 eligibility requirements, Innovative Energy projects must:

- 1. Involve at least one 1703 Eligible Technology.
- 2. Meet the **innovation requirement** projects must deploy a *new* or significantly improved technology:
  - Recently developed, discovered, or learned, OR
  - Involve one or more meaningful and important improvements in productivity or value.

#### **Changes**

Expanded eligibility for projects involving storage and critical minerals processing, manufacturing, and recycling.







TITLE 17
Innovative Supply
Chain Projects
(1703)

# Innovative Supply Chain Projects (1703)

Innovative Supply Chain projects employ a New or Significantly Improved Technology in the manufacturing process for a qualifying clean energy technology, or manufacture a qualifying New or Significantly Improved Technology.







# **Innovative Supply Chain Projects**

1703

Financing for commercial-scale deployment of innovative manufacturing processes & technologies

#### **Project Eligibility**

In addition to meeting the common Title 17 eligibility requirements, Innovative Supply Chain projects must:

- 1. Involve at least one 1703 Eligible Technology
- 2. Meet the **innovation requirement** projects must deploy a *new or significantly improved technology* through:
  - the manufacturing process OR
  - the relevant product itself

**Note:** Innovative Supply Chain projects may avoid, reduce, utilize, or sequester air pollutants or anthropogenic GHG emissions through either:

- the manufacturing process OR
- the end-use of the component on a full life-cycle basis

#### **Changes**

Expanded eligibility for projects involving manufacturing, industrial decarbonization, and critical materials.







TITLE 17
State Energy
Financing Institution
(SEFI)-Supported
Projects (1703)

# State Energy Financing Institution (SEFI) Projects (1703)

**SEFI projects** support deployment of a qualifying clean energy technology and receive meaningful financial support or credit enhancements from an entity within a state agency or financing authority.

SEFI projects are not required to employ innovative technology.







# **State Energy Financing Institution (NEW)**

1703

Financing that aligns federal dollars with state clean energy priorities

#### **Project Eligibility**

In addition to meeting the common Title 17 eligibility requirements, SEFI projects must:

- 1. Involve at least one 1703 Eligible Technology
- 2. Receive **meaningful financial support** or credit enhancements from a SEFI.

#### **Notes**

- SEFI projects **DO NOT** have an innovation requirement.
- "Meaningful" support will be determined on a case-by-case basis.

#### What is a SEFI?

A State Energy Financing Institution (SEFI) is a quasiindependent entity or an entity within a state agency or financing authority established by a State to:

 Provide financing support or credit enhancements, including loan guarantees and loan loss reserves, for eligible projects under Title 17;

#### **AND**

 Create liquid markets for eligible projects, including warehousing, or taking other steps to reduce financial barriers to the deployment of existing and new eligible projects.







TITLE 17
Energy
Infrastructure
Reinvestment (EIR)
Projects (1706)

# Energy Infrastructure Reinvestment (EIR) Projects (1706)

**EIR projects** retool, repower, repurpose, or replace energy infrastructure that has ceased operations or enable operating energy infrastructure to reduce air pollutants or emissions of greenhouse gases.

EIR projects are not required to employ innovative technology.







# **Energy Infrastructure Reinvestment (NEW)**

1706

Financing to leverage existing U.S. energy infrastructure for the clean energy future

#### **Project Eligibility**

In addition to meeting the common Title 17 eligibility requirements, EIR projects must:

- 1. Retool, repower, repurpose, or replace energy infrastructure that has ceased operations, **OR**
- 2. Enable operating energy infrastructure to avoid, reduce, utilize, or sequester air pollutants or anthropogenic emissions of greenhouse gases.

#### What is "Energy Infrastructure"?

A facility, and associated equipment, used for:

The generation or transmission of electric energy;

OR

 The production, processing, and delivery of fossil fuels, fuels derived from petroleum, or petrochemical feedstocks.

#### **Notes**

- EIR projects **DO NOT** have an innovation requirement.
- Conditional commitments must be issued by September 30, 2026.

 Environmental remediation costs and refinancing outstanding indebtedness directly relevant to the energy infrastructure can be eligible for EIR financing as part of a larger reinvestment plan.







# **Energy Infrastructure Reinvestment (NEW)**

1706

Financing to leverage existing U.S. energy infrastructure for the clean energy future

#### **Example Projects**

- Power plant (or associated infrastructure)
   retooled, repowered, repurposed or replaced with:
  - Renewable energy (and storage)
  - Distributed energy (e.g., VPPs)
  - Transmission interconnection to off-site clean energy
  - New manufacturing facilities for clean energy products or services
  - Nuclear generation

- Reconductoring transmission lines and upgrading voltage
- Installing emissions control technologies, including carbon capture and sequestration (CCS)
- Repurposing oil and gas pipelines (e.g., for H<sub>2</sub>, CO<sub>2</sub>)
- Upgrading refineries for biofuels or hydrogen
- Upgrading or uprating existing generation facilities (with emissions control technologies for projects involving fossil generation)





# **Title 17 Lending Overview**

#### **Loan Guarantee Features**

- No minimum or maximum loan size
- Total loan amount up to 80% of eligible project costs.
- Loan guarantees (up to 100%) of U.S. Treasury's Federal Financing Bank (FFB) loans, or partial guarantees (up to 90%) of commercial loans
- Applicants do not apply directly to FFB; Title 17 loan applications are managed through LPO
- Typically structured as project financing, but LPO can accommodate other structures.

#### **Loan Products**

- Direct loan from FFB backed by 100% "full faith and credit" DOE guarantee
- DOE partial guarantee of commercial debt from Eligible Lenders

#### **Interest Rates and Fees**

#### Interest Rate (for FFB loans)

- Treasury + 3/8ths (0.375%) + risk-based charge
- Treasury rate is fixed according to loan tenor (maximum 30 years)

#### No Application Fees

#### **Transaction Costs**

External advisor fees

#### Fees

- Facility fee (0.6% on first \$2.0bn, 0.1% for excess; required at financial close)
- Maintenance fee (required annually postclosing)





# **Changes to Fees and Costs**

	Pre-Energy Act of 2020	2021-2022	New Guidance
Application Fees	Part I, Part II, Due Diligence (~\$400,000 to \$1,000,000)	Temporarily suspended, but required at financial closing	Eliminated in full
Advisor Fees	Required at Due Diligence	Requirement to pay starting at Due Diligence temporarily suspended	Required starting at Due Diligence (Eligible project cost financeable by LPO)
Facility Fees	25% required at Conditional Commitment & 75% prior to financial close (10 CFR 609.11)	Required at financial close	Amounts due at financial close: 0.6% on first \$2 billion, 0.1% for excess of \$2 B
Maintenance Fees	Required annually post-closing	Required annually post-closing	Required annually post- closing





# **Title 17 Loan Transaction Process**

 LPO engages early with applicants and remains a partner for the lifetime of the loan

(1) Pre-Application

LPO meets with potential applicant to discuss project eligibility, application process, and applicant questions.

(3) Due Diligence

LPO and applicant engage third-party advisors and negotiate term sheet.

(5) Financial Close

LPO and borrower execute definitive financing documents, subject to additional conditions precedent to loan disbursements.

2 Application & Review

Part I | LPO establishes project eligibility and readiness to proceed.

Part II | LPO conducts programmatic, technical, and financial evaluation.

4 Conditional Commitment

LPO offers term sheet for loan guarantee. The offer is contingent on borrower satisfying certain conditions.

6 Monitoring

LPO monitors project and acts as trusted partner for the life of the loan, acting in the best interest of the U.S. government and taxpayers.





# **Frequently Asked Questions**

# 1: Time

**Q:** How long does the application process take?

**A:** Anywhere from six months to over a year, depending on applicant preparedness and project complexity.

# 2: Fees & Costs

**Q:** I hear the fee structure is changing. What is happening?

**A:** There are no application fees. Applicants are responsible for third-party advisor costs, which begin in the due diligence phase. Applicants enter into sponsor payment letters with each third-party advisor and pays the third-party advisor costs as incurred. Additionally, applicants pay a facility fee at close and maintenance fees annually.

# **3: Tax Credits**

**Q:** How does LPO financing interact with tax credits and other federal support?

**A:** LPO's loan guarantees can be stacked with clean energy tax credits. Projects repurposing fossil infrastructure with cleaner generation in IRS-designated Energy Communities are eligible for a 10% increase to the tax credit. Please review the guidance for detailed information on federal support restrictions.



# A History of Portfolio Success Across Sectors

Over \$40 billion in innovative clean energy & advanced transportation loans and commitments

#### **Advanced Nuclear | \$12 Billion**

First AP1000 reactor in the U.S. (Vogtle)

#### **Advanced Vehicles & Components | \$19.6 Billion**

Accelerated domestic electric vehicles manufacturing. (BlueOval SK, Ford, Nissan, Tesla, Ultium Cells)

#### **Concentrating Solar Power | \$5.8 Billion**

Five CSP plants utilizing diverse technologies.

#### **Utility-Scale PV Solar | \$4.7 Billion**

First five photovoltaic (PV) solar projects larger than 100 MW in the U.S.

#### **Critical Materials | \$3.2 Billion**

Supporting domestic supply chains for electric vehicles battery manufacturing in the U.S. (Li-Cycle, Redwood Materials, Rhyolite Ridge, Syrah Vidalia)

#### **Virtual Power Plants | \$3.0 Billion**

Landmark commitment to scale up access to DERs nationwide. (Hestia)

#### **Wind Energy | \$1.7 Billion**

Four onshore farms, including one of the world's largest. (Shepherds Flat)

#### **Advanced Fossil | \$1 Billion**

Conditional commitment for industrial decarbonization & clean hydrogen project. (Monolith)

#### **Geothermal | \$546 Million**

Innovative thermal extraction, revitalizing the sector.

#### **Hydrogen | \$504 Million**

Innovative clean hydrogen storage facility.

(Advanced Clean Energy Storage)

#### **Transmission | \$343 Million**

Advanced transmission lines for improved grid reliability. (One Nevada Line)

NOTE: Loan Amounts on this page represent the approximate amount of the approved loan at closing (or, for active conditional commitments, at time of conditional commitment announcement), including principal and any capitalized interest. Note that in making an obligation of use of loan authority, DOE does not include capitalized interest in those amounts.





# Good Governance in Portfolio Management

Proactive risk & portfolio management as responsible stewards of taxpayer resources

# **Program Management Operations**Strategic Improvements

- Fill key positions in management with experienced professionals
- Clarify authorities & accountabilities of managers
- Establish and effectively communicate clear goals for management
- Proactively protect the taxpayers' interest
- Engage in long-run strategic planning for the programs
- Improve reporting to the public
- Strengthen & restructure internal oversight of the programs
- Establish external oversight

#### **Portfolio Surveillance**

Strategic Improvements

- Create a comprehensive management information reporting system
- Establish a protocol for timely reporting of critical information
- Incorporate lessons learned into policies, procedures, reporting and decision making





# **Portfolio Impact**

# Catalyzing U.S. Markets

Over a decade of success in building a bridge to clean energy commercialization

# **Critical Materials Supply Chain**

Financed critical minerals processing and recycling projects, supporting battery cell manufacturing and bolstering domestic EV supply chains.

#### Utility-Scale Renewables Innovation

Financed large-scale, innovative solar, wind, geothermal, and transmission projects across the West.



# **Advanced Auto Manufacturing**

Financed the upgrade of advanced auto manufacturing facilities across the Midwest, creating tens of thousands of jobs.

# **Advanced Nuclear Energy**

Financed the construction of the first new nuclear reactor in the U.S. in 30 years.



# **Portfolio Impact**

## **Climate & Economy**

LPO-supported projects reduce greenhouse gas emissions and create American jobs

over

99 million

MWh clean energy produced



equivalent to...

over

9.3 million

homes powered



over

45 million

tons of CO, displaced



21.5 million

advanced technology vehicles produced



equivalent to...

2.9 billion

gallons of gasoline saved



26 million

tons of CO, displaced





**OVER** 

46,000

permanent jobs created



NOTE: Emissions and job impacts attributable to LPO-supported portfolio projects, cumulative through Q3 FY2023.





# The Next Generation of LPO Financing

#### LPO is working with stakeholders across innovative clean energy & advanced transportation sectors



## Advanced Vehicles & Components

Vehicles • Components • Lightweighting • Manufacturing • Electric Vehicle (EV)

Battery Manufacturing



#### **Biofuels**

Advanced Biofuels • Biodiesel • Cellulosic Biofuels • Renewable Diesel • Renewable Natural Gas (RNG) • Sustainable Aviation Fuel (SAF)



#### **Critical Materials**

Extraction • Manufacturing • Mining • Processing • Recovery • Recycling



#### **EV** Charging

Deployment • Manufacturing



#### **Hydrogen**

Generation • Infrastructure • Transportation



#### **Offshore Wind**

Offshore Wind Generation • Offshore Wind Supply Chain & Vessels



#### **Renewable Energy**

Electrification • Geothermal • Hydrokinetics • Hydropower • Repowering Onshore Wind • Solar Supply Chain • Waste Conversion



#### **Storage**

EV Bidirectional Storage • Newer Battery Chemistries & Flow Batteries • Compressed Air Energy Storage • Pumped Storage Hydropower • Thermal Energy Storage



#### **Transmission**

Grid Efficiency • Grid Reliability •
High-Voltage Direct Current (HVDC)
Systems • Offshore Wind Transmission
• Systems Sited Along Rail & Highway
Routes



#### Virtual Power Plants

Connected Distributed Energy Resources (DERs)



#### **Advanced Fossil**

Carbon Feedstock Waste Conversion •
Fossil Infrastructure Repurposing &
Reinvestment • Hybrid Generation •
Hydrogen Generated From Fossil
Sources • Synfuel



#### Carbon Management

Carbon Capture & Storage (CCS) • Carbon Dioxide Removal (CDR) • Direct Air Capture (DAC) • Industrial Decarbonization • CO<sub>2</sub>
Transportation Infrastructure



#### **Advanced Nuclear**

Advanced Nuclear Reactors •
Micro Reactors • Nuclear Fuel Cycle •
Nuclear Supply Chain •
Nuclear Uprates & Upgrades •
Small Modular Reactors (SMRs)



#### **Tribal Energy**

Energy Development Projects •
Energy Storage • Fossil Energy •
Microgrids • Renewable Energy •
Transmission Infrastructure •
Transportation of Fuels





# Let's Talk About Your Project

Contact LPO to see what financing options may be available for your project

# **Questions?**



To **schedule** a no-fee, pre-application consultation, go to: Energy.gov/LPO/Pre-App

Call or write the LPO Team: 202-287-5900 | LPO@hq.doe.gov





**Download** the full Title 17 Guidance document at: **Energy.gov/LPO/Clean-Energy** 

**Learn more** about LPO and all of its financing programs at: **Energy.gov/LPO** 



